



seqlisting.2002.09.04 (edited by Gomez)

SEQUENCE LISTING

<110> Lawton, Robert  
Mermer, Brion  
Francoeur, Greg

<120> Specific Binding Protein for Treating  
Canine Allergy

<130> 01-1275A

<140> 09/281,760

<141> 1999-03-30

<150> 09/058,331

<151> 1998-04-09

<160> 39

<170> FastSEQ for Windows Version 3.0

<210> 1

<211> 5

<212> PRT

<213> Canis familiaris

<220>

<221> PEPTIDE

<222> (2)...(3)

<223> Xaa = any amino acid

<400> 1

Leu Xaa Xaa Tyr Arg  
1 5

<210> 2

<211> 5

<212> PRT

<213> Canis familiaris

<220>

<221> PEPTIDE

<222> (3)...(4)

<223> Xaa = Any amino acid

<400> 2

Tyr Arg Xaa Xaa Leu  
1 5

<210> 3

<211> 8

<212> PRT

<213> Canis familiaris

<220>

<221> PEPTIDE

<222> (2)...(3)

<223> Xaa = Any amino acid

<220>

<221> PEPTIDE

seqlisting.2002.09.04 (edited by Gomez)

<222> (6)...(7)

<223> Xaa = Any amino acid

<400> 3

Leu Xaa Xaa Tyr Arg Xaa Xaa Leu  
1 5

<210> 4

<211> 7

<212> PRT

<213> Canis familiaris

<400> 4

Thr Leu Leu Glu Tyr Arg Met  
1 5

<210> 5

<211> 11

<212> PRT

<213> Canis familiaris

<400> 5

Gly Met Asn Leu Thr Trp Tyr Arg Glu Ser Lys  
1 5 10

<210> 6

<211> 9

<212> PRT

<213> Canis familiaris

<220>

<221> PEPTIDE

<222> (2)...(3)

<223> Xaa = Any amino acid

<220>

<221> PEPTIDE

<222> (6)...(8)

<223> Xaa = Any amino acid

<400> 6

Cys Xaa Xaa Pro His Xaa Xaa Xaa Cys  
1 5

<210> 7

<211> 16

<212> PRT

<213> Canis familiaris

<400> 7

Ser Val Thr Leu Cys Pro Asn Pro His Ile Pro Met Cys Gly Gly Gly  
1 5 10 15

<210> 8

<211> 14

<212> PRT

<213> Canis familiaris

<400> 8

Ser Ala Cys Pro Asn Pro His Asn Pro Tyr Cys Gly Gly Gly  
1 5 10

<210> 9

seqlisting.2002.09.04 (edited by Gomez)

<211> 9  
<212> PRT  
<213> Canis familiaris  
  
<220>  
<221> PEPTIDE  
<222> (2)...(2)  
<223> Xaa = Any amino acid

<220>  
<221> PEPTIDE  
<222> (5)...(5)  
<223> Xaa = Any amino acid

<220>  
<221> PEPTIDE  
<222> (7)...(8)  
<223> Xaa = Any amino acid

<400> 9  
Cys Xaa Pro His Xaa Pro Xaa Xaa Cys  
1 5

<210> 10  
<211> 14  
<212> PRT  
<213> Canis familiaris

<400> 10  
Ser Ala Cys His Pro His Leu Pro Lys Ser Cys Gly Gly Gly  
1 5 10

<210> 11  
<211> 12  
<212> PRT  
<213> Canis familiaris

<400> 11  
Val Thr Leu Cys Pro Asn Pro His Ile Pro Met Cys  
1 5 10

<210> 12  
<211> 17  
<212> PRT  
<213> Canis familiaris

<400> 12  
Ser Val Thr Leu Cys Pro Asn Pro His Ile Pro Met Cys Gly Gly Gly  
1 5 10 15  
Lys

<210> 13  
<211> 7  
<212> PRT  
<213> Homo sapiens

<400> 13  
Val Asn Leu Thr Trp Ser Arg  
1 5

<210> 14  
<211> 11

<212> PRT  
<213> Felis catus

<400> 14  
Gly Met Thr Leu Thr Trp Ser Arg Glu Asn Gly  
1 5 10

<210> 15  
<211> 11  
<212> PRT  
<213> Canis familiaris

<400> 15  
Gly Met Asn Leu Thr Trp Ser Arg Glu Ser Lys  
1 5 10

<210> 16  
<211> 9  
<212> PRT  
<213> Canis familiaris

<400> 16  
Cys Pro Asn Pro His Ile Pro Met Cys  
1 5

<210> 17  
<211> 9  
<212> PRT  
<213> Canis familiaris

<400> 17  
Cys Pro Asn Pro His Asn Pro Tyr Cys  
1 5

<210> 18  
<211> 9  
<212> PRT  
<213> Canis familiaris

<400> 18  
Cys His Pro His Leu Pro Lys Ser Cys  
1 5

<210> 19  
<211> 9  
<212> PRT  
<213> Canis familiaris

<400> 19  
Cys Ser Asn Pro His Val Thr His Cys  
1 5

<210> 20  
<211> 9  
<212> PRT  
<213> Canis familiaris

<400> 20  
Cys Ser His Pro His Leu Thr His Cys  
1 5

<210> 21  
<211> 9

<212> PRT

<213> Canis familiaris

<400> 21

Cys Ser Asn Pro His Ile Thr Gln Cys  
1 5

<210> 22

<211> 9

<212> PRT

<213> Canis familiaris

<400> 22

Cys Met Asn Pro His Ile Thr His Cys  
1 5

<210> 23

<211> 9

<212> PRT

<213> Canis familiaris

<400> 23

Cys Thr Asn Pro His Asn Pro Tyr Cys  
1 5

<210> 24

<211> 9

<212> PRT

<213> Canis familiaris

<400> 24

Cys Pro Asn Pro His Asn Pro Tyr Cys  
1 5

<210> 25

<211> 9

<212> PRT

<213> Canis familiaris

<400> 25

Cys His Pro His Leu Pro Lys Arg Cys  
1 5

<210> 26

<211> 17

<212> PRT

<213> Canis familiaris

<400> 26

Tyr Cys Arg Val Thr His Pro His Leu Pro Lys Asp Ile Val Arg Ser  
1 5 10 15  
Ile

<210> 27

<211> 17

<212> PRT

<213> Homo sapiens

<400> 27

Gln Cys Arg Val Thr His Pro His Leu Pro Arg Ala Leu Met Arg Ser  
1 5 10 15  
Thr

<210> 28  
 <211> 17  
 <212> PRT  
 <213> Cercopithecus aethiops

<400> 28  
 Gln Cys Arg Val Thr His Pro His Leu Pro Arg Ala Leu Val Arg Ser  
 1 5 10 15  
 Thr

<210> 29  
 <211> 17  
 <212> PRT  
 <213> Felis catus

<400> 29  
 Gln Cys Lys Val Thr His Pro Asp Leu Pro Leu Val Ile Val Arg Ser  
 1 5 10 15  
 Ile

<210> 30  
 <211> 17  
 <212> PRT  
 <213> Sus scrofa

<400> 30  
 Tyr Cys Asn Val Thr His Pro Asp Leu Pro Lys Pro Ile Leu Arg Ser  
 1 5 10 15  
 Ile

<210> 31  
 <211> 15  
 <212> PRT  
 <213> Mus musculus

<400> 31  
 Gln Cys Ile Val Asp His Pro Asp Phe Pro Ile Val Arg Ser Ile  
 1 5 10 15

<210> 32  
 <211> 16  
 <212> PRT  
 <213> Equus caballus

<400> 32  
 Lys Cys Thr Val Ser His Pro Asp Leu Pro Arg Glu Trp Arg Ser Ile  
 1 5 10 15

<210> 33  
 <211> 1842  
 <212> DNA  
 <213> Canis familiaris

<220>

<221> misc\_feature

<222> (136)..(136)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (413)..(414)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (451)..(451)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (460)..(462)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (500)..(500)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (530)..(530)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (568)..(568)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (847)..(849)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (853)..(853)

<223> "n" stands for any nucleic acid

HN  
<220>

<221> misc\_feature

<222> (1382)..(1382)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (1832)..(1832)

<223> "n" stands for any nucleic acid

<220>

<221> CDS

<222> (167)..(448)

<223>

<220>

<221> CDS

<222> (608)..(931)



<223>

<220>

<221> CDS

<222> (1024)..(1344)

<223>

<220>

<221> CDS

<222> (1419)..(1742)

<223>

<400> 33

gtccagtgtgac ctccatctct gcccccatgc ttttccttct cagacgcccc ctggggccag 60

gagcaggata ccccagggtca acagcgggcc tggcatatga tgggggtgaca gtcccaaggc 120

aggcactgtac actggncttg tccccacagc caccagccag gacctg tct gtg ttc 175  
Ser Val Phe  
1

ccc ttg gcc tcc tgc tgt aaa gac aac atc gcc agt acc tct gtt aca 223  
Pro Leu Ala Ser Cys Cys Lys Asp Asn Ile Ala Ser Thr Ser Val Thr  
5 10 15

ctg ggc tgt ctg gtc acc ggc tat ctc ccc atg tcg aca act gtg acc 271  
Leu Gly Cys Leu Val Thr Gly Tyr Leu Pro Met Ser Thr Thr Val Thr  
20 25 30 35

tgg gac acg ggg tct cta aat aag aat gtc acg acc ttc ccc acc acc 319  
Trp Asp Thr Gly Ser Leu Asn Lys Asn Val Thr Thr Phe Pro Thr Thr  
40 45 50

ttc cac gag acc tac ggc ctc cac agc atc gtc agc cag gtg acc gcc 367  
Phe His Glu Thr Tyr Gly Leu His Ser Ile Val Ser Gln Val Thr Ala  
55 60 65

tcg ggc gag tgg gcc aaa cag agg ttc acc tgc agc gtg gct cac nnt 415  
Ser Gly Glu Trp Ala Lys Gln Arg Phe Thr Cys Ser Val Ala His Xaa  
70 75 80

gag tcc acc gcc atc aac aag acc ttc agt gct aanccagggt tnnntggcca 468  
Glu Ser Thr Ala Ile Asn Lys Thr Phe Ser Ala  
85 90

catgacactg gagggagaag ggacaggctg gngaattgcgc catggctggt aacgcccagc 528

anatgtgggg ctggggctga cacatgagtc ccgtgggctn agagacacca ctgccacatg 588

gctgcctcta cttctagca tgt gcc tta aac ttc att ccg cct acc gtg aag 640

seqlisting.2002.09.04 (edited by Gomez)  
 Cys Ala Leu Asn Phe Ile Pro Pro Thr Val Lys  
 95 100 105

ctc ttc cac tcc tcc tgc aac ccc gtc ggt gat acc cac acc acc atc Leu Phe His Ser Ser Cys Asn Pro Val Gly Asp Thr His Thr Thr Ile 110 115 120	688
cag ctc ctg tgc ctc atc tct ggc tac gtc cca ggt gac atg gag gtc Gln Leu Leu Cys Leu Ile Ser Gly Tyr Val Pro Gly Asp Met Glu Val 125 130 135	736
atc tgg ctg gtg gat ggg caa aag gct aca aac ata ttc cca tac act Ile Trp Leu Val Asp Gly Gln Lys Ala Thr Asn Ile Phe Pro Tyr Thr 140 145 150	784
gca ccc ggc aca aag gag ggc aac gtg acc tct acc cac agc gag ctc Ala Pro Gly Thr Lys Glu Gly Asn Val Thr Ser Thr His Ser Glu Leu 155 160 165	832
aac atc acc cag ggn nng tgn gta tcc caa aaa acc tac acc tgc cag Asn Ile Thr Gln Gly Xaa Xaa Val Ser Gln Lys Thr Tyr Thr Cys Gln 170 175 180 185	880
gtc acc tat caa ggc ttt acc ttt aaa gat gag gct cgc aag tgc tca Val Thr Tyr Gln Gly Phe Thr Phe Lys Asp Glu Ala Arg Lys Cys Ser 190 195 200	928
gag atggccccc tgtcccccag aaaccagat gcgcgaggct cagagatgag Glu	981
ggccaaggca cgccctcatg cagcctctca cacactgcag ag tcc gac ccc cga Ser Asp Pro Arg 205	1035
ggc gtg agc agc tac ctg agc cca ccc agc ccc ctt gac ctg tat gtc Gly Val Ser Ser Tyr Leu Ser Pro Pro Ser Pro Leu Asp Leu Tyr Val 210 215 220	1083
cac aag gcg ccc aag atc acc tgc ctg gta gtg gac ctg gcc acc atg His Lys Ala Pro Lys Ile Thr Cys Leu Val Val Asp Leu Ala Thr Met 225 230 235	1131
gaa ggc atg aac ctg acc tgg tac cgg gag agc aaa gaa ccc gtg aac Glu Gly Met Asn Leu Thr Trp Tyr Arg Glu Ser Lys Glu Pro Val Asn 240 245 250	1179
ccg gtc cct ttg aac aag aag gat cac ttc aat ggg acg atc aca gtc Pro Val Pro Leu Asn Lys Lys Asp His Phe Asn Gly Thr Ile Thr Val 255 260 265 270	1227
acg tct acc ctg cca gtg aac acc aat gac tgg atc gag ggc gag acc Thr Ser Thr Leu Pro Val Asn Thr Asn Asp Trp Ile Glu Gly Glu Thr 275 280 285	1275
tac tat tgc agg gtg acc cac ccg cac ctg ccc aag gac atc gtg cgc Tyr Tyr Cys Arg Val Thr His Pro His Leu Pro Lys Asp Ile Val Arg 290 295 300	1323
tcc att gcc aag gcc cct ggt gagccacggg cccaggggag gtgggcgggc Ser Ile Ala Lys Ala Pro Gly	1374

seqlisting.2002.09.04 (edited by Gomez)

ctcctgancc ggagcctggg ctgacccac acctatccac aggc aag cgt gcc ccc 1430  
Lys Arg Ala Pro  
310

ccg gat gtg tac ttg ttc ctg cca ccg gag gag gag cag ggg acc aag 1478  
Pro Asp Val Tyr Leu Phe Leu Pro Pro Glu Glu Glu Gln Gly Thr Lys  
315 320 325

gac aga gtc acc ctc acg tgc ctg atc cag aac ttc ttc ccc gag gac 1526  
Asp Arg Val Thr Leu Thr Cys Leu Ile Gln Asn Phe Phe Pro Glu Asp  
330 335 340 345

att tca gtg caa tgg ctg cga aac gac agc ccc atc cag aca gac cag 1574  
Ile Ser Val Gln Trp Leu Arg Asn Asp Ser Pro Ile Gln Thr Asp Gln  
350 355 360

tac acc acc acg ggg ccc cac aag gtc tgc ggc tcc agg cct gcc ttc 1622  
Tyr Thr Thr Thr Gly Pro His Lys Val Ser Gly Ser Arg Pro Ala Phe  
365 370 375

ttc atc ttc agt cgc ctg gtg gac tgg gag cag aaa aac aaa ttc acc 1670  
Phe Ile Phe Ser Arg Leu Val Asp Trp Glu Gln Lys Asn Lys Phe Thr  
380 385 390

tgc caa gtg gtg cat gag gcg ctg tcc ggc tct agg atc ctc cag aaa 1718  
Cys Gln Val Val His Glu Ala Leu Ser Gly Ser Arg Ile Leu Gln Lys  
395 400 405

tgg gtg tcc aaa acc ccc ggt aaa tgatgcccac cctcctcccg ccgccacccc 1772  
Trp Val Ser Lys Thr Pro Gly Lys  
410 415

ccagggctcc acctgctggg gcaggggagg ggggctggca agaccctcca tctatccttn 1832

tcaataaaca 1842

<210> 34  
<211> 94  
<212> PRT  
<213> Canis familiaris

<220>

<221> misc\_feature

<222> (83)..(83)

<223> The 'Xaa' at location 83 stands for Asn, Ser, Thr, Ile, Asp, Gly, Ala, Val, His, Arg, Pro, Leu, Tyr, Cys, or Phe.

<220>

<221> misc\_feature

<222> (136)..(136)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature  
 <222> (413)..(414)  
 <223> "n" stands for any nucleic acid  
 <220>  
 <221> misc\_feature  
 <222> (451)..(451)  
 <223> "n" stands for any nucleic acid  
 <220>  
 <221> misc\_feature  
 <222> (460)..(462)  
 <223> "n" stands for any nucleic acid  
 <220>  
 <221> misc\_feature  
 <222> (500)..(500)  
 <223> "n" stands for any nucleic acid  
 <220>  
 <221> misc\_feature  
 <222> (530)..(530)  
 <223> "n" stands for any nucleic acid  
 <220>  
 <221> misc\_feature  
 <222> (568)..(568)  
 <223> "n" stands for any nucleic acid  
 <220>  
 <221> misc\_feature  
 <222> (847)..(849)  
 <223> "n" stands for any nucleic acid  
 <220>  
 <221> misc\_feature  
 <222> (853)..(853)  
 <223> "n" stands for any nucleic acid  
 <220>

<221> misc\_feature

<222> (1382)..(1382)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (1832)..(1832)

<223> "n" stands for any nucleic acid

<400> 34

Ser Val Phe Pro Leu Ala Ser Cys Cys Lys Asp Asn Ile Ala Ser Thr  
1 5 10 15

Ser Val Thr Leu Gly Cys Leu Val Thr Gly Tyr Leu Pro Met Ser Thr  
20 25 30

Thr Val Thr Trp Asp Thr Gly Ser Leu Asn Lys Asn Val Thr Thr Phe  
35 40 45

Pro Thr Thr Phe His Glu Thr Tyr Gly Leu His Ser Ile Val Ser Gln  
50 55 60

Val Thr Ala Ser Gly Glu Trp Ala Lys Gln Arg Phe Thr Cys Ser Val  
65 70 75 80

Ala His Xaa Glu Ser Thr Ala Ile Asn Lys Thr Phe Ser Ala  
85 90

<210> 35

<211> 108

<212> PRT

<213> Canis familiaris

<220>

<221> misc\_feature

<222> (81)..(81)

<223> The 'Xaa' at location 81 stands for Lys, Arg, Thr, Met, Glu, Gly, Ala, Val, Gln, Pro, Leu, a stop codon, Trp, or Ser.

<220>

<221> misc\_feature

<222> (82)..(82)

<223> The 'xaa' at location 82 stands for a stop codon, Trp, or Cys.

<220>

<221> misc\_feature

<222> (136)..(136)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (413)..(414)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (451)..(451)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (460)..(462)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (500)..(500)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (530)..(530)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (568)..(568)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (847)..(849)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (853)..(853)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (1382)..(1382)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (1832)..(1832)

<223> "n" stands for any nucleic acid

<400> 35

HC Cys Ala Leu Asn Phe Ile Pro Pro Thr Val Lys Leu Phe His Ser Ser  
1 5 10 15

Cys Asn Pro Val Gly Asp Thr His Thr Thr Ile Gln Leu Leu Cys Leu  
20 25 30

Ile Ser Gly Tyr Val Pro Gly Asp Met Glu Val Ile Trp Leu Val Asp  
35 40 45

Gly Gln Lys Ala Thr Asn Ile Phe Pro Tyr Thr Ala Pro Gly Thr Lys  
50 55 60

Glu Gly Asn Val Thr Ser Thr His Ser Glu Leu Asn Ile Thr Gln Gly  
65 70 75 80

Xaa Xaa Val Ser Gln Lys Thr Tyr Thr Cys Gln Val Thr Tyr Gln Gly  
85 90 95

Phe Thr Phe Lys Asp Glu Ala Arg Lys Cys Ser Glu  
100 105

<210> 36

<211> 107

<212> PRT

<213> Canis familiaris

<220>

<221> misc\_feature

<222> (136)..(136)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (413)..(414)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (451)..(451)

<223> "n" stands for any nucleic acid

<220>

41 <221> misc\_feature

<222> (460)..(462)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (500)..(500)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (530)..(530)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (568)..(568)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature



<222> (847)..(849)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (853)..(853)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (1382)..(1382)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (1832)..(1832)

<223> "n" stands for any nucleic acid

<400> 36

Ser Asp Pro Arg Gly Val Ser Ser Tyr Leu Ser Pro Pro Ser Pro Leu  
1 5 10 15

Asp Leu Tyr Val His Lys Ala Pro Lys Ile Thr Cys Leu Val Val Asp  
20 25 30

Leu Ala Thr Met Glu Gly Met Asn Leu Thr Trp Tyr Arg Glu Ser Lys  
35 40 45

Glu Pro Val Asn Pro Val Pro Leu Asn Lys Lys Asp His Phe Asn Gly  
50 55 60

Thr Ile Thr Val Thr Ser Thr Leu Pro Val Asn Thr Asn Asp Trp Ile  
65 70 75 80

Glu Gly Glu Thr Tyr Tyr Cys Arg Val Thr His Pro His Leu Pro Lys  
85 90 95

Asp Ile Val Arg Ser Ile Ala Lys Ala Pro Gly  
100 105

<210> 37

<211> 108

<212> PRT

<213> Canis familiaris

<220>

<221> misc\_feature

<222> (136)..(136)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (413)..(414)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (451)..(451)

<223> "n" stands for any nucleic acid

<220>

11

<221> misc\_feature

<222> (460)..(462)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (500)..(500)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (530)..(530)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature

<222> (568)..(568)

<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature  
<222> (847)..(849)  
<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature  
<222> (853)..(853)  
<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature  
<222> (1382)..(1382)  
<223> "n" stands for any nucleic acid

<220>

<221> misc\_feature  
<222> (1832)..(1832)  
<223> "n" stands for any nucleic acid

<400> 37

Lys Arg Ala Pro Pro Asp Val Tyr Leu Phe Leu Pro Pro Glu Glu Glu  
1 5 10 15

Gln Gly Thr Lys Asp Arg Val Thr Leu Thr Cys Leu Ile Gln Asn Phe  
20 25 30

Phe Pro Glu Asp Ile Ser Val Gln Trp Leu Arg Asn Asp Ser Pro Ile  
35 40 45

Gln Thr Asp Gln Tyr Thr Thr Thr Gly Pro His Lys Val Ser Gly Ser  
50 55 60

Arg Pro Ala Phe Phe Ile Phe Ser Arg Leu Val Asp Trp Glu Gln Lys  
65 70 75 80

Asn Lys Phe Thr Cys Gln Val Val His Glu Ala Leu Ser Gly Ser Arg  
85 90 95

Ile Leu Gln Lys Trp Val Ser Lys Thr Pro Gly Lys  
100 105

seqlisting.2002.09.04 (edited by Gomez)

<210> 38

<211> 213

<212> DNA

<213> Canis familiaris

<220>

<221> CDS

<222> (1)..(213)

<400> 38

gaa ggc atg aac ctg acc tgg tac cgg gag agc aaa gaa ccc gtg aac 48  
Glu Gly Met Asn Leu Thr Trp Tyr Arg Glu Ser Lys Glu Pro Val Asn  
1 5 10 15

ccg gtc cct ttg aac aag aag gat cac ttc aat ggg acg atc aca gtc 96  
Pro Val Pro Leu Asn Lys Lys Asp His Phe Asn Gly Thr Ile Thr Val  
20 25 30

acg tct acc ctg cca gtg aac acc aat gac tgg atc gag ggc gag acc 144  
Thr Ser Thr Leu Pro Val Asn Thr Asn Asp Trp Ile Glu Gly Glu Thr  
35 40 45

11 tac tat tgc agg gtg acc cac ccg cac ctg ccc aag gac atc gtg cgc 192  
Tyr Tyr Cys Arg Val Thr His Pro His Leu Pro Lys Asp Ile Val Arg  
50 55 60

tcc att gcc aag gcc cct ggt 213  
Ser Ile Ala Lys Ala Pro Gly  
65 70

<210> 39

<211> 71

<212> PRT

<213> Canis familiaris

<400> 39

Glu Gly Met Asn Leu Thr Trp Tyr Arg Glu Ser Lys Glu Pro Val Asn  
1 5 10 15

Pro Val Pro Leu Asn Lys Lys Asp His Phe Asn Gly Thr Ile Thr Val  
20 25 30

Thr Ser Thr Leu Pro Val Asn Thr Asn Asp Trp Ile Glu Gly Glu Thr  
35 40 45

seqlisting.2002.09.04 (edited by Gomez)

41 Tyr Tyr Cys Arg Val Thr His Pro His Leu Pro Lys Asp Ile Val Arg  
50 55 60

Ser Ile Ala Lys Ala Pro Gly  
65 70

---